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SCHOOL AND SOCIETY

Volume VI SATURDAY, NOVEMBER, 24, 1917 Number 152

THE MUNICIPAL UNIVERSITY. III
ITS ACTUAL WORKINGS

WE have noted the origin and the growth of the municipal university; we have seen its *raison d'être*, its advantages, and its purposes; let us examine the actual results now being obtained by three typical institutions of this character—the University of Toledo, the University of Akron and the University of Cincinnati.

In these institutions, as in all other American municipal schools, the tendency toward an ever-increasing cooperation between the college and the city is most noticeable. Every department of municipal administration becomes more and more a university laboratory where students may study the actual workings of a vast enterprise. The students of the universities of Akron and Cincinnati use daily the public schools as their workshops where theories may be put into practise, and here they learn to teach by observing experts in the act, or by taking charge of classes in the presence of these experts. The activities of the health board, police court, water and sewerage departments, hospitals, asylums and city treasury become in the student's eyes a part of the university life. In return these cities are coming more and more to expect expert advice and actual municipal service from the college faculty and student body. In arranging its financial and educational policy the Board of Education feels free to call upon the administrative experts of the university, and in both Cincinnati and Akron the College of Education has considerable part in examining and promoting city school teachers, and thus not only saves money for the city, but obviates the old-time opportunity of gaining the job through personal or political pull. In all these cities the university library becomes affiliated with the city library; what is of the city is of the university, and *vice versa;* while gradually the extension work spreads over the municipality and encourages every citizen to continue his education even into mature life.

The University of Toledo, recognizing that many students can not go to college steadily for four years, has wisely divided its institutions into a junior college and a senior college. The first familiarizes the student with his urban environment and introduces to him the larger, more general fields of human thought. Thus, the work of the first two years leads him toward something and lands him somewhere—which is more than the work of the liberal arts college generally does. The senior college, leading to the bachelor's degree, requires a more intensive study of problems of civic or scientific import, and therefore demands that the student select a major subject and one minor related to it. In addition he must accomplish some piece of investigation for the city, or perform some task in which many citizens will be interested. Is not this, after all, the very idea of service, the very vitalizing of education, the very training toward citizenship that educators have theorized about for so long?

There is not much trouble, of course, in the University of Toledo or any other municipal college, in determining the best

course for the student. It is largely predetermined. Those studies applying most directly to the student's citizenship must be at the core of all. Thus we find the Toledo faculty insisting upon the following subjects: Principles of human behavior, 3 hours; university education, 2 hours; modern social problems, 4 hours; modern economic and political problems, 4 hours; historical study of modern European and American social, industrial and economic problems, 6 hours; rhetoric, 5 hours; modern English and American literature, 4 hours; sciences, 6 hours; physical training, 4 hours; electives, 22 hours. In the course on human behavior the student discusses how he behaves and why, and his influence over the conduct of others. In university education he discovers what the universities of the past and the present have done and are endeavoring to do. In modern English and American literature he investigates the effect of literature on the individual and on society. Each of the required subjects is viewed from its relationship to man as a social being and citizen.

Akron pays through a tax levy about $64,000 annually for its municipal university and gets heavy returns from the investment; for besides having a most excellent college at hand for training its own citizens, the community receives material aid in several fields. The city justly demands that only those students whose parents live in the city, or who can prove one year's continuous residence at Akron shall be relieved of all tuition fees. The child of a non-resident owning property in the city may receive credit toward his fees to the extent of the taxes actually paid in Akron by the non-resident during the year; but otherwise the outsider pays his share of the expense of his education.

The University of Akron, opened January 1, 1914, was formerly Buchtel College under the control of the Universalists. In April, 1913, it was proposed to turn over the plant and endowment to the city to be used as a municipal school; in December the transfer was accomplished; and the university has flourished since as never before. It consists of a college of liberal arts, a college of engineering managed on the Cincinnati cooperative plan, explained later; a school of home economics, a department of civic cooperation, which cooperates with the Bureau of Municipal Research and City Tests, and the so-called combination courses with the state university and other institutions in agriculture, law and medicine. Evidently the institution fills a real need; for seventy-five per cent. of the Akron high-school graduates attend the local college.

The Department of Civic Cooperation is a genuine boon to the pocketbook of the city; for through the bureau of tests the university aids in chemical and physical testing of city purchase and bacteriological investigations for the board of health; through the bureau of municipal research civic officials and the general public are supplied with information of civic value; and for some time through a bureau of industrial-chemical research investigations of chemical problems for both the city and private industries were carried on. The department of political science and sociology cooperates with the board of health and the director of city charities, and the students in this department and the engineering school have made such accurate surveys of housing conditions and paving needs in Akron that the information is in constant use by city officials. Advanced students organize and direct the recreation clubs of the city schools, and it is now proposed that the municipal playgrounds be placed under the supervision of the professor of physical education, and the inspection of restaurants, bakeries, etc., be directed by the department of domestic

science. So closely related is the college work with the city work that the student's fourth year is so planned that he may spend one half day in college, and one half day in some city department; while the fifth or graduate year is spent largely in the bureau of municipal research.

By far the greatest municipal university in the world is that of Cincinnati. As stated earlier, it receives less than five per cent. of the city revenues, and yet it is a genuine university with graduate school, college of liberal arts, college of engineering, a teachers' college, medical college, college of commerce, school of nursing and health, school of household arts, kindergarten training school, observatory, municipal reference bureau, bureau of city tests and affiliations with numerous other schools, hospitals, libraries and public institutions of the city. Connected with its own library are the incalculably valuable collections of the American Association for the Advancement of Science, and of the Historical and Philosophical Society of Ohio. Its relations with the various schools of music, the public art collections, the zoological garden, the public schools, are such as to make practically every intellectual activity of Cincinnati a part of the university life.

And yet with the constantly increasing cost of everything else the expense to Cincinnati of each student has constantly decreased. In 1874 each scholar cost the city $350 per year, in 1885 only $190, and now but a little over $90. This is indeed providential; for seventy-seven per cent. of the students are of parents with no higher education whatever; they are truly the products of the average American people, and possess little surplus means.

It was at this institution that the famous cooperative plan of theory and practise in technical study—commonly called the Cincinnati plan—originated. The student of engineering, for instance, may take either the four years' theoretical course, or the five years' cooperative course, the latter being by far the more valuable. In this two weeks of class work alternate with two weeks of actual shop work for wages throughout eleven months of the year for five years. More than eighty manufacturing firms of the city cooperate in this plan, and the student graduates with a knowledge so practical that he is of immediate value to an industrial plant. He receives not only wages, but college credit for his work in factory or mill; for a supervisor, known as a shop coordinator, a technical graduate with thorough experience, spends his mornings with classes at the university and his afternoons with students in the shop, watches closely the efficiency and speed of production of each college worker, credits him according to the ability shown, and later explains the function and purposes of the article produced by the scholar-apprentice. It has been called "the most significant movement in all educational history; for it fulfils every item in the theory of learning by doing." It has spread to numerous other schools of engineering and scientific study, and will in time be the only recognized way of gaining technical knowledge.

And what else is this educational dynamo doing for the industrial and civic life of Cincinnati? Its various medical departments serve free nearly eighty thousand patients per year. Its orthopedic dispensary annually examines, treats and supplies with mechanical helps many hundred cripples. Its psychological clinic investigates the causes of retardation in the city's defective students, prescribes the proper studies and methods, and has led to the creation of a special public school for retarded children. Its teachers' college has trained nearly 800 of the 1,100 teachers in the city schools, examines applicants for

positions in the system, recommends instructors for promotion, offers to city teachers certain courses which automatically lead to an increase in salary, and with the cooperation of other university departments doubled the municipal school appropriation in two years, and raised the standard of the teachers probably above that of any other city corps of instructors in America. The department of political science maintains in the city hall the most efficient reference bureau in the United States; for here one may find collected and digested all information that council, city officer or general public could desire in the field of civic activities. The department of social science cooperates with the juvenile court in furnishing volunteer officers, with the city department of charities and corrections in obtaining means of relief, with the House of Refuge in making vice investigations, with the Associated Charities in searching out genuine needs and frauds, with the Anti-Tuberculosis League in making health surveys, with the Union Bethel and the Jewish settlement in club work and collecting statistics, with the Juvenile Protective Association in surveys of the needs and dangers of the young of the city, with the Council of Social Agencies in surveys of social conditions, with the Social Workers' Club, the Consumers' League and a host of other organizations. The university performs all chemical and microscopic work for the city hospital; the students of engineering serve as assistants in the city engineering department; the engineering instructors serve as consulting experts in problems of the waterworks, street-car system and telephone system. The school of household arts cooperates with the General Hospital. The directors of the observatory provide declinations and geographical coordinates to city surveyors and engineers, and offer free lectures on astronomy many nights in the year. The college of commerce aids the chamber of commerce in making industrial surveys and estimates, and in gathering statistics. The children's clinic maintains several milk stations and sends nurses throughout the city to train mothers in the care of their babes. The department of biology has charge of the city bird reserve and school gardening, and aids in the management of the famous zoological garden. The colleges of liberal arts and commerce maintain throughout the city night classes of college rank five nights in the week, enroll each year over 600 students in such courses, and offer annually more than two hundred lectures which are attended by thousands of citizens.

The Bureau of City Tests analyzes and estimates the value of all material to be purchased by the city, such as antiseptics, asphalt, cement, burlap, oils, coal, paints, rubber, roofing and soaps, and the firm that attempts to flim-flam the city of Cincinnati is liable to be fooled. For among the frauds discovered by this bureau, to the profit of hundreds of thousands of dollars to the city, are the following: paint with 22 per cent. benzine instead of turpentine; carbon black paint almost entirely mineral graphite; bad cement; coal with 44 per cent. ash; cylinder oil that was worthless in cold weather; sand of low grade, and rubber pump-valves made entirely of vegetable fiber.

Thus have we departed in these days from the academic theories of the Harvard and Yale that Cotton Mather and Jonathan Edwards knew. No more do our students argue the metaphysical question as to how many angels can dance on the point of a needle; they (the students) are busy discovering how many germs are dancing on the citizen's bread and butter. Our colleges, in short, have turned from a study of heaven to an investigation of how long we can delay our journey there. And this is well—for most of us. For the municipal

university with its overwhelming zeal for service, bids fair to make our cities beautiful, healthful and attractive enough to tempt all earthly citizens to remain earthly as long as possible. It is the climax of civic training in this land of cities; as President Dabney says, "the one thing needed to complete our American system of higher education."

Carl Holliday
Toledo University

DR. FLEXNER'S "A MODERN SCHOOL"

A little more than a year ago, two papers on secondary-school education, one written by ex-president Eliot of Harvard, the other by Dr. Abraham Flexner, secretary to The General Education Board, were printed and circulated by that board. Under ordinary circumstances both papers would have been lost in the usual yearly flood of like discussions. In fact, the first Dr. Eliot's, has already disappeared from both sight and thought, even in the educational world. But, owing to the decision of The General Education Board to establish, at Columbia University, an experiment school after the pattern of "A Modern School," the second has drawn attention to itself anew. It seems not untimely, therefore, to examine anew Dr. Flexner's paper in order to understand a little more clearly of what sort the school at Columbia is to be and what it proposes to do.

No one can read "A Modern School" even cursorily and not be struck by the obsession of its author, his demon of torment being "traditional" education in general and the classics in particular. "Current education," he says, "is largely determined by the traditional and is, therefore, a failure." The really educated man in the "modern sense," while being "able to read and write, spell the words he *commonly uses*,[1] figure correctly and with *moderate facility* within the limits of *his need*, will be content to forego the mental *discipline* of formal—(*traditional*)—studies and will obtain his education from studies that serve *real* purposes." Yet "he will be *trained* to know and understand the world he lives in, and this *realistic* education *must eventuate* in *intellectual power*, for *abstract* thinking has never before played so important a part in life." Upon all which one is moved to remark that one might go a long way and not find a choicer bit of reasoning.

This "modern" educated man is to be trained to intellectual power in abstract thinking by a curriculum that will embrace, the paper continues, "science, industry, æsthetics and civics, *realistically treated*." Under this treatment, "science is to be better taught"—God be praised!—"literature is to be a matter of *real* interest, carried so high and so far that in another generation, such worthies as Homer—in translation of course—Chaucer modernized (?) and Shakespeare expurgated (?) will be read for *sheer fun*," and this, too, without "special training"! Very likely by some method of sublimated absorption. But "mathematics offers peculiar difficulty, particularly algebra and geometry"; therefore "to wipe the slate of them and write on it only what might be found to serve the *real* needs might evolve a course in mathematics that we should not recognize." There can be no doubt of that, and such a course, too, as might aptly be named: "Mathematics for the Feeble-Minded!" Further, "the modern languages," under *realistic treatment*, of course, "are to be retained in this educated man's curriculum; but Latin and Greek are to be wholly excised, because a *positive* case can be made out for *neither!*" They are *Anathema*. Maranatha!

And yet, the paper concludes, as if with a little, shivering desire to hedge, "the

[1] The italics throughout this summary of Dr. Flexner's paper are mine.—I. T.

modern school will start at great *disadvantage*, having to contend, not only with *prejudice* and *tradition*, but with the fact of having no properly *directed* elementary school as a foundation." For "A modern secondary school can not be built on a conventional, *i. e.*, traditional, elementary school. The modern school would, therefore, have to begin with a vestibule, an elementary "Vorschule," in which children would be started properly. And yet it aims not so much to "train a particular group of children, as to influence educational practise and to become a seminary for the training of teachers, first *its own*, then others who will go out into service." As one reads that closing sentence one wonders, just a little, how the group of eminent—uneducated (?) as well as untrained (?)—specialists, who are to take charge of the school at Columbia in the fall, will feel at being characterized as "untrained" in the "modern sense"!

Whatever else may be said of "A Modern School" no one will lightly accuse it of over-modesty or praise it for restraint in self-complacency. On the other hand, even from a running summary like the above, one may catch the spirit of prejudice, narrowness and lack of open-mindedness that pervades the whole paper; may note the special pleading, the unwarranted assumptions and the unbased predictions of the advocate in the chair of the critic; may see also, on almost every page, the substitution—as with the mob at Ephesus—of breath for thought, and iteration for argument; and lastly, may mark inadequacy of means with magnificence of promise go blithely hand-in-hand from page to page. All this augurs ill for "A Modern School," unless, or until, it can be successfully maintained that thistles will produce figs, or thorns grapes.

"A Modern School" is unscientific. The last quarter of a century we have heard much of the scientific spirit and method, which, while many of us have not been awestruck in the presence of their claims, at their best have aimed to get only at the truth; have been willing to take nothing for granted and to prove everything, regardless of whither the process might lead or how many prized theories might be upset. This has not been an easy task and very few have been equal to it. For among other things it involves coming to the examination of a matter free, not only from settled opinions upon it, but also from predilections in favor of any particular possible outcome of the test; coming, also, with both the willingness to accept the result of the last effort of exhaustive research and the courage to do so. It involves, further, as exact and complete a knowledge as possible of all that has previously been done upon the subject, and a judgment clear enough and sound enough to be able to decide when real progress has been made by the examination, which, on its part, must be pervaded throughout by a spirit of fairness and honesty unimpeachable. That the task is difficult, the thin line of scientific men who have been able to accomplish it, from Archimedes to Pasteur, is a witness.

"A Modern School" fails the test of the scientific method and spirit at every point. Though it sets up to be a school for universal acceptance, it refuses, at the start, even to test Latin, Greek and any sort of rigorous mathematics, though no case, that has any standing among intelligent men, has been made out against any one of them. The opinion of its author and promoter is fixed and settled, on this point: he has prejudged the case and will not consent even to a trial, though made by those of his own household. He not only has predilections in favor of a certain outcome, but has also told us beforehand what the result is to be. Judged by his own recent pronounce-

ments on the matter, he has not adequate knowledge of what has been or is being done on the studies and methods he rejects from trial in his scheme. And his evident attitude of advocate impeaches, in advance, his fairness in a trial in which he not only sits as a judge, but also as one influential in choosing the jury.

From this unscientific spirit come two indirect results—by-products so to speak—the first affecting, under a free or democratic school system, the right of a pupil to an unhindered choice of studies in his preparation for future work; the second, affecting his right, in the course of this preparation, to have the way left open also at the forward end. "A Modern School" says openly there are certain studies which no one may pursue within its doors or under its direction, not even if pursued in the "new," "enlightened," "modern" way, which, it may be remarked, Dr. Flexner has never yet revealed. It simply and curtly tells the seeker to go elsewhere if he has a mind to anything "traditional," though all the while claiming to be the universal preparatory school, the school of the future, the school of large opportunity, high endeavor and universal service. As it shuts its pupils off from unhindered choice at the beginning of their course, so in the path provided for them, the way has not only been hedged within very narrow limits, but has neither clear direction nor free exit. To me it resembles nothing so much as the nets we used to see in the Sound, set for Menhaden, cunningly arranged for wind and tide but leading to the "pocket" from which there was no escape. Apparently "A Modern School" has given no thought, no care, to the question whether its pupils might not sometime find themselves caught in the net of inadequate preparation for future advance, if not in a cul de sac of unavailing and hopeless struggle.

But as surely as the unscientific spirit pervades "A Modern School" so surely does not the spirit of manliness and bravery. To us all, life, even at its best, is a difficult business, requiring all the patience, courage and hardihood we can muster to make it go off worthily, and any school worth the name, particularly one that announces as its chief business "preparation for life," ought to make some provision for training in the three preeminently manly qualities, endurance, courage and patience. Many times and always in vain, I have read through A Modern School for some word or hint that it regards such training as part of its business. Work upon any subject as a means of gaining patience and courage for further work upon it, seems to have been wholly left out of the scheme, and training a pupil to self-dependence, to have been entirely forgotten. No future, needing any or all the three qualities I have mentioned, has been planned for in this school, but the needs or fancied needs of the pupil and what he might be *interested* in are to be the chief arbiters in determining what he is to do and *how*. So far as possible work—except as the pupil likes it—is to be eliminated. Pleasant excursions through shop and store and park and zoo, seasoned by occasional reference to books, will provide the necessary *training* in the departments of science represented by these excursions. Visits to the libraries will serve well the *realistic treatment* of literature and history, while trips to the various foreign quarters will advance the *practical training* in Spanish, French, *et al.*, beyond one's most delirious dreams. The treatment of art and music is left unplanned, the author of the paper pleading ignorance on those æsthetic subjects. Only mathematics and classics are left to be consid-

ered; the latter is taboo, while the former is to be managed, not by *study*—God forbid! —but by passing out mathematical titbits to the pupils as need requires or occasion offers.

In conclusion I wish to call attention to the appeal "A Modern School" makes to its prospective pupils. From first to last the appeal is made to the selfish interest of the pupil. Himself is to be the center of all his thought; his material advancement, the object of all his care. Everything is tested by its bearing upon that advancement. Is it practical? Do I need it? Will it be of use to me? These are questions ever in his mind, the subject under consideration being rejected or accepted according as the answer is negative or affirmative. Nowhere is there any appeal that would direct his thought toward service to others, except of that sort in which the Ego of the doer is well in the foreground. Even in the choice of studies, the means of preparation, the appeal is selfish. What does he *like?* In what is he interested? What is its practical value? Never a suggestion of high or hard thinking is visible, never a lure to his better self. It is the way of least resistance, the broad road of easy going.

In the appeal which "A Modern School" makes there is also an implied assurance that its self-centered plan of preparation is quite sufficient to meet all the needs of life and answer all its aspirations. It takes no cognizance of the truth that "spiritual things are spiritually discerned," and insists that the deep things of literature, of history and of all the splendid record of human life and thought may be apprehended by a self-centered study of material things and a *realistic* treatment of human endeavor. This is, indeed, to attempt to sound the depths of the sea with a carpenter's line, and to open the windows of heaven with a glazier's knife. It is materialism unclad and unabashed; without God and without hope.

Isaac Thomas

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EDUCATIONAL EVENTS

UNIVERSITY REGISTRATION STATISTICS

According to a summary in *The Minnesota Alumni* weekly, the University of California enrollment shows an eleven per cent. decrease. The enrollment this year is 5,155 as against 5,794 in 1916, at the corresponding date.

Enrollment at the University of Chicago shows a decrease of 19.5. The actual number of women in attendance at Chicago has increased. For the current quarter the figures are 3,187 now as against 3,651 last year.

Columbia's registration on September 30, 1916, was 17,039—on the same day 1917, it was 14,598 or a decrease of 2,441, or almost fifteen per cent.

Cornell University enrollment has fallen about thirty per cent. The actual decrease is 1,392. One thousand and sixty-four fewer old men returned this year than usual. The 327 additional decrease is in the number of students entering for the first time.

The Harvard University enrollment has fallen from 4,758 in 1916 to 2,840 in 1917—almost exactly forty per cent.

At the University of Illinois the enrollment shows a decrease of twenty per cent. The falling off is among the men, as the enrollment of women shows an actual increase of 13. The figures for enrollment at Urbana only, on October 1, were 1916, 5,214; 1917, 4,135.

Iowa State College (Ames) enrollment has decreased about twenty per cent. compared with corresponding date of last year.

Exact figures for Michigan are not available but it appears that the enrollment there will fall off about 1,500, or over twenty per cent. The registrar estimates that the enrollment figures will be substantially the same as for 1913–14.

Ohio State University enrollment shows a decrease of 774, or 16.4 per cent. The date of the figures given is the end of the second week and the totals stand 1916, 4,707; 1917, 3,933.

Twenty-two per cent. is the decrease in enrollment at the University of Pennsylvania. The enrollment on October 15, 1916, as compared with the same day 1917, is 8,618 and 6,706.

Princeton enrollment has fallen this year to 937. Last year's enrollment was 1,555. The actual decrease is 618. The enrollment is the lowest it has been for twenty-five years.

Wisconsin's enrollment has fallen from 5,020, on November 1, 1916, to 4,064 on the same day, 1917, a decrease of 19 per cent. The junior class suffered the most with a falling off of men of 40.4 per cent. The law college shows the heaviest decrease—54 per cent.

At Yale the decrease in enrollment has been a little more than one third, or from 3,262 to 2,122. The largest falling off is in the college which has an enrollment of 875 this year as againt 1,502 last year. The senior class has been cut from 393 to 131.

The enrollment figures for Minnesota, October 29, 1917 (this corresponds to the date of October 16, 1916), show a decrease of 708 or 14 per cent. The totals are: 1916, 5,068; 1917, 4,360. The falling off in the attendance of women has been very slight, a total of 30 in an enrollment of 1,809, last year. The law school shows a decrease of exactly 40 per cent. and the college of agriculture a decrease of 36 per cent. The decrease in enrollment in the upper classes is very much larger than these totals would show. The increase in enrollment in the freshman and sophomore classes, partially offsetting the decrease in the upper classes. The freshman class in all colleges but agriculture, law, pharmacy and chemistry are larger than last year.

THE SAN FRANCISCO SCHOOL SYSTEM

The report of the survey of the San Francisco schools, asked for some two years ago by the Public Education Society, the Board of Education and the Chamber of Commerce and entrusted to Commissioner Claxton, of the Federal Bureau of Education, has now been completed and is described in the New York *Evening Post*.

Commissioner Claxton's recommendations, based upon the findings of the educational experts to whom the actual work of the survey was committed, contemplate changes some of which can only be adopted after amendments to the charter of San Francisco and the Constitution of California have been made.

The report, as abstracted in the New York *Evening Post*, proposes the creation, in place of the present board of four salaried ($3,000) school directors, of a board of education, either elective or appointive, serving without pay, entirely independent of other branches of the city government, and charged with full responsibility for the control and management of the schools and school property.

The board would fix its own budget, and determine the amount of the annual tax for school purposes. As to the latter point, the report points out that the present amount expended annually upon the schools is too small for proper efficiency.

The superintendent of schools would become, under the proposed scheme, the technical or professional expert of the board, and would be appointed by that body instead of holding, as at present, an independent elective office. Charged with complete responsibility for the conduct of the schools, he would be given the right to designate his assistants and determine their duties. As things are now, the board of education and the superintendent of schools exercise a sort of dual control. Where administrative efficiency requires that they work in cooperation, they, in fact, frequently work in competition. The board hires teachers, for example, and the superintendent dismisses them. Each may bring on a controversy; neither has the power to settle it.

The report urges the need of larger playgrounds, and recommends the establishment of a community center and an evening school at each high school.

So far as the work of the schools themselves is concerned, the report calls for a larger pro-

portion of men teachers and principals, a reduction in the size of classes, adequate libraries and class-room equipment, especially in the high schools, and an improvement of teaching methods by "more stimulating thought and less memoriter work," "more effort in self-reliant thinking" on the part of pupils, greater accuracy in arithmetic and the inclusion of at least one modern language in the curriculum of each high school. The pressing need of a more careful segregation of defectives is also urged.

The initial reception of the report, drastic as are the recommendations which it carries, has been on the whole favorable. The Public Education Society, which has been studying the school problem of San Francisco for a number of years, will assuredly find in the report many of the reforms which it has been working for; and the Commonwealth Club, whose weekly meetings are a forum for the discussion of state and local issues, may be counted upon to give the report a friendly examination. The president of the board of education has hastened to declare that the holding of salaried positions by four school directors, he himself being one of them, will have no influence in a decision on the merits of the case. Only the superintendent of schools, whose office, as an elective position, would be abolished under the new plan, has come out in opposition; and the substance of his criticism concerns certain details of the findings rather than the recommendations as a whole.

The publication in the newspapers of a summary of the Claxton survey, just on the eve of a special election in which the question of an issue of bonds for new schoolhouses was to be submitted, was looked upon with apprehension by some who feared lest adverse criticism of the schools might endanger the proposition. The bonds have just been voted, however, five to one; and the smallness of the vote—45,183 out of a total nominal registration of about 187,000 and an actual registration of perhaps less than 150,000, a discrepancy due in part to the draft—if it did not indicate any wide public interest, at least showed no disposition to impede the development of school facilities at this juncture.

THE NEW YORK CITY SCHOOLS AND THE TEACHERS

The meeting of the board of education on November 14, according to press accounts, resulted in a heated argument over the suspension of three teachers of the De Witt Clinton High School on charges of "holding views subversive of good discipline in the schools and which undermine good citizenship" and of the recommendation that six teachers from the same school be transferred to other high schools "for the good of the service." Ex-President Thomas W. Churchill said the charges against the teachers were indefinite and he did not believe the stigma of disloyalty ought to be put on the teachers before the charges were publicly announced. The recommendation to approve the action of the High School Committee was finally passed, after much discussion, by a vote of 33 to 1, Mr. Churchill being the only member to vote against it.

The six teachers and the schools to which they are transferred are as follows: Morris Barash, instructor of mathematics, to Commercial High School; Joseph Jablowoner, instructor of mathematics, to New Utrecht High School; Israel Mirsky, instructor of mathematics, to Boys' High School; Cornelia V. Cleaveland, instructor in English, to Bryant High School; Charles Ham, English instructor, to Stuyvesant High School, and Michael Kurz, teacher of French, to Boys' High School.

The teachers suspended are Thomas Mufson, A. Henry Schneer and Samuel Schmalhausen. They were told that charges would be served on them calling for their appearance this week before the Committee on High Schools, of which John Whalen is chairman.

The meeting of the board was opened by President Willcox reading a long statement, which said the Teachers' Council, an organization representing all teachers' societies, had, on his suggestion, determined to investigate and report on the question of loyalty in the schools. He also read a resolution passed at

a meeting of teachers of the De Witt Clinton High School condemning as "undemocratic, unprofessional in motive, subversive of the proper spirit in the school system, and autocratic," the remarks of Mr. Whalen, in which he declared that if the disturbances of the high-school students in protest against the longer school day did not cease he would close the schools.

In the debate on the transfer of the teachers, which followed Mr. Willcox's remarks, John Martin, a member of the board, thought it would be well to restore the suspended teachers till a report was received from the Teachers' Council. This was opposed on the ground that Dr. Tildsley's investigation was sufficient. Mr. Churchill objected to the transfer because the charges were "vague and indefinite."

President Willcox is quoted by the New York *Evening Post* as stating that he did not believe that the board of education would reconsider its action in regard to the transfer of six teachers from the De Witt Clinton High School, in the face of the protest which the teachers directed to John J. Tildsley, associate superintendent of schools.

"Socialists are not disloyal," said Mr. Willcox. "Neither are pacifists, unless they express themselves in disloyal speech or action. Freedom of speech is the right of every American citizen. I have no sympathy with any attempt to root out any theory of government. One of the qualifications for teaching is to be able to teach American citizenship."

Representatives of the Teachers' Union have announced that the case of the Teachers' Union against Dr. John L. Tildsley, superintendent of high schools, will be taken to Dr. John H. Finley. At a meeting of the executive board of the union on November 19 at Washington Irving High School charges were drawn against Dr. Tildsley, based on his alleged admissions and actions. It was intimated that Dr. Tildsley is accused of pro-Germanism in his methods of education, and also of being biased and prejudiced in his treatment of certain members of the Teachers' Union. The brief prepared will be submitted to counsel for the union, John E. O'Brien, who is to perfect the charges and file them with Dr. Findley, state commissioner of education.

A committee was appointed to get a statement of the teachers' grievances against Dr. Tildsley before the public. Henry Linville, president of the Teachers' Union; Benjamin Glassberg, of Commercial High School, Brooklyn; Max Schonberg, Mrs. Mabel L. Rees, Louis J. Klein and Mrs. Johanna Lindlof are on this committee.

In the open letter addressed to Dr. Tildsley, who recommended them for transfer, the six transferred teachers assert that the "guesses" made by the newspapers in regard to the motives for their transfer have besmirched their reputations and ask for reinstatement in the De Witt Clinton High School. The letter adds: "We feel that by your action, wittingly or unwittingly, you have cast a slur on our names. We can not permit ourselves to believe, in view of your remarks at the board meeting, that it was your purpose to produce this effect. We respectfully request that we be reinstated in De Witt Clinton High School, where our records attest to loyal and intelligent service; or, if you have definite reasons for transferring us, that you present them to us specifically, so that we may have the opportunity to answer the charges before the properly constituted authorities."

EDUCATIONAL NOTES AND NEWS

The committee of which Hon. Thomas E. Finegan, of Albany, New York, is chairman, has been in Boston in consultation with local committees. Boston is anxious for the meeting of the Department of Superintendence. Owing to other events booked earlier, which overlap National Education Association dates, the committees experience considerable difficulty in adjusting matters. It will require another week to settle the question definitely. Dr. Finegan expects an attendance of 6,000 and requires a guarantee for hotel accommodations for that number. He requests members not to reserve rooms until the location of the meeting has been officially an-

nounced and he promises that this announcement will be made at the earliest possible moment.

The Rev. Dr. Arthur Cushman McGiffert has been elected president of Union Theological Seminary to succeed Dr. Francis Brown, who died on October 15, 1916. Dr. McGiffert was Washburn professor of church history at the seminary.

Ernest Warren Butterfield, deputy state superintendent of the schools of New Hampshire and formerly superintendent of schools in Dover, N. H., has been appointed state superintendent in succession to Dr. Henry C. Morrison, who, as already announced, has accepted the position of assistant state superintendent of Connecticut.

The New York City Board of Education has appointed Miss Kate Taylor principal of the Bay Ridge High School, Brooklyn, in succession to Harry A. Potter, who had been transferred to the New Utrecht High School. Miss Taylor is the first woman principal of a high school to be appointed in New York. The Bay Ridge High School is for girls.

Dr. Henry Lamar Crosby, professor of Greek in the University of Pennsylvania, will conduct the university summer school during the session of 1918. Dr. Owen L. Shinn, who conducted it for the last two years, has retired in order to devote his entire time to the professorship in chemistry.

Professor Charles Edward Merriam, of the department of political science at the University of Chicago, has been appointed, on the recommendation of the National Research Council, chairman of the Federal Examining Board of the Aviation Corps.

Arthur E. Bostwick, librarian of the Public Library, St. Louis, has been appointed by the mayor of St. Louis a member of the Municipal Art Commission of that city.

Dr. S. P. Breckinrige, assistant professor of social economy in the University of Chicago, has been appointed director of the Home Service Institute of the American Red Cross with its headquarters at the School of Civics and Philanthropy, Chicago.

Mr. J. L. Riley, of the State Normal School at Tahlequah, Oklahoma, has been appointed professor of mathematics in the Junior College at Stephenville, Texas.

Professor R. B. Wild has been elected pro vice-chancellor of Manchester University in place of Professor Alexander, whose term has expired.

Professor W. E. Zeuch, a member of the faculty of the department of economics at Indiana University, has resigned because of an investigation being made of a letter written by him to a newspaper protesting against the publication of stories of German atrocities.

It is reported in the daily papers that Thomas W. Churchill, former president of the New York Board of Education, has had a conference with Judge Hylan. Mr. Churchill stated that he intended to present to the mayor-elect "the impracticability of the new law" which requires the appointment of a new board of education of seven members on January 1. Mr. Churchill declared that it would be an almost impossible task to find seven members of the right type, either men or women, who would be willing to serve without pay and do the work satisfactorily. He advocated a change in the law which would provide, either for a paid board of seven members or an unpaid board of twenty-one members.

President Frank G. Goodnow is giving, during November, a course of lectures at the Lowell Institute, Boston, on "China in the Twentieth Century." The lectures are as follows: November 8, "Physical conditions," November 10, "Economic China," November 15 and 17, "Intellectual China," "Philosophical China," "Social China" and "Political China," November 30, "Modern China," and December 1, "The Future."

The faculty of Cornell University has voted to end the college year on May 22, about one month earlier than usual, in order that the undergraduates may have an opportunity of offering their services to the nation that much

sooner. The usual Christmas vacation will be shorter than usual.

Lafayette College has abolished the Ph.B. degree. Beginning in the year 1919, the requirement of the degree of bachelor of arts will be conferred without Greek as a prerequisite course. The A.B. degree is given to students taking Latin, and the degree of bachelor of science to those whose courses provide only modern languages.

Medical inspection of the school children of Kansas City has been suspended by the municipal authorities for lack of funds. A public-spirited citizen, who desires to remain incognito, has agreed to pay the expenses of the work for three months. Five physicians, five dentists and ten nurses will form the staff of inspectors and begin work at once under the supervision of the Hospital and Health Board.

The New Jersey State Social Service Commission has announced that Columbia University has agreed through its extension teaching department to organize classes in such lines of work as the commission regards desirable. These courses will be given in the William Dickinson High School, Newark and Palisades Avenue, Jersey City. Each course will be given for one night a week for fifteen weeks, and the charge will be $12. The class period will be from 8 o'clock until 9:40, and will consist of lectures and quizzes.

The public-school system of Chicago has been extended to business and industrial establishments. Teachers will be supplied in establishments where 25 or more students can be spared from their work for a stipulated number of hours a week, and where a room for the school is provided free. Two large packing companies are among those which have taken advantage of the offer.

Superintendent Ernest L. Thurston, of Washington, D. C., has been given authority by the board to open school buildings for educational purposes for the benefit of soldiers, where the classes do not interfere with regular school work. It is the opinion of the board that special training may be given by volunteer teachers to several thousand soldiers who may be in training in the vicinity and who desire general or special educational training.

The School Board Journal states that Superintendent F. E. Spaulding, of Cleveland, has taken steps toward putting into operation the program to make the schools' educational advantages available to persons who can not profit by them because of the necessity of earning a livelihood. In this direction Charles W. Disbrow has been appointed in charge of the free employment bureau, which has been established as a clearing house for the business men of the city desiring part-time help and young persons who want to work part time and attend school. In addition, a teacher will be named in each high school to have charge of a subsidiary bureau in the school. A statement of public-school building requirements submitted to the Cleveland board by Superintendent F. E. Spaulding calls for an expenditure of $5,262,197.

Mr. Bonar Law announced in the House of Commons on October 19 that he feared it would be impossible either to pass the Education Bill this session, or to give a day for the second reading, unless there was a prospect of passing the bill. *Nature* states that there is little substantial opposition to the essential clauses of Mr. Fisher's Bill, and all the provisions covered by them are "urgently demanded by, and connected with, the circumstances of the war."

The opening of the winter term in French *lycées*, colleges and schools generally has been marked by a campaign to have the study of wars past and present abolished. The result of this campaign has been a protest to the minister of public instruction, signed by professors of *lycées* and higher primary-school teachers to the number of 2,500. A committee of university men, under the name of the Comité Michelet, has been formed to combat this propaganda, and it includes among its patrons such men as MM. Ernest Lavisse, Boutroux, Croiset, and Edmond Perrier.

A new school for the vocational reeducation of the mutilated has been founded exclusively for the benefit of mutilated or wounded agriculturists, by the Union of Foreign Colonies in

France in the Ferme de Champagne at Juvisy-sur-Orge for the benefit of war victims. It includes sections for general training, horticulture, nurseries, agricultural mechanics and automobile traction. Since the opening of the school, 550 patients have been admitted. A large number have been returned to their homes, properly benefited; for the others, lucrative positions have been obtained by the union. The foundations have been established through the cooperation of American, English, Dutch, Norwegian, Russian and other committees, constituting the Union of Foreign Colonies.

Students at the State University of Iowa, if called into government service, will be refunded all tuition from the time they leave the institution. This ruling, it is expected, will affect a large number of men. In many cases students who had intended to attend college this fall expect to be called in the second or third draft.

The American University Union in Europe, the headquarters of which will be in Paris with branch agencies in London and in such other cities of the Allies as may seem desirable, has for its general object the meeting of the needs of American university and college men who are in Europe for military or other service in the cause of the Allies. Among its specific objects will be the following: (1) To provide at moderate cost a home with the privileges of a simple club for American college men and their friends passing through Paris on furlough; the privileges to include information bureau, writing and newspaper room, library, dining-room, bed-rooms, baths, social features, opportunities for physical recreation, entertainments, medical advice, etc. (2) To provide a headquarters for the various bureaus already established or to be established in France by representative American universities, colleges and technical schools. (3) To cooperate with these bureaus, when established, and in their absence to aid institutions, parents or friends in securing information about college men in all forms of war service, reporting on casualties, visiting the sick and wounded, giving advice, serving as a means of communication with them, etc. All graduate students, non-graduate students and prospective students of American Universities are entitled to general privileges of the Union, subject to the rules and conditions laid down by the executive committee. The board of trustees is as follows: Anson P. Stokes, secretary of Yale University, *chairman;* H. B. Hutchins, president of the University of Michigan, *vice-chairman;* Henry B. Thompson, Princeton University, *treasurer;* Roger Pierce, secretary of Harvard University, *secretary;* President Goodnow, Johns Hopkins University; President Finley, University of the State of New York; President Graham, University of North Carolina; John Sherman Hoyt, Columbia University.

DISCUSSION AND CORRESPONDENCE

A CLEAN SWIMMING POOL AND A LARGE BALL FIELD FOR EVERY BOY AND GIRL

Let this be the school slogan after the war. In England it is sure to be, and in America the need is no less; but we are farther from the lessons of the war. For young children, the sand pile and mud pies and ring-around-a-rosey in yard or garden where sunshine is and the air; but for older boys and girls the ball field and the swimming pool. Some degree of persistent participation in the most intensely active and absorbing kinds of play, that makes for strength; yes, but, what is more important by far, it makes for the will to use strength to the limit. "Whatever you have to do do it with all your might—if you can." [1]

If the swimming pool problem is being considered in your city I shall be glad to send you information concerning the Bethlehem-plan Swimming Pool; and you will, I am sure, be interested in the following which is extracted from a letter I wrote last July to Mr. Robert R. Ellis, of Memphis, Tennessee.

CONDITIONS UNDER WHICH THE BETHLEHEM PLAN IS ESPECIALLY APPLICABLE IN THE CONSTRUCTION OF A SWIMMING POOL

1. Where water costs, directly or indirectly, 2 or 3 cents per thousand gallons, or more; where the patronage of the pool is heavy and demands frequent change of water; and especially where it is desired to keep a pool extremely clean.

2. Where a pool is used during the winter months

the heating of the water is a large item of expense, and this expense is nearly eliminated by the Bethlehem Plan.

REQUIREMENTS OF THE BETHLEHEM PLAN

1. The pool must be rectangular in shape.

2. The pool must be provided with large filter beds. Area of filter beds should be from one quarter to one half of pool area for semi-private pools with moderate patronage, or fully equal to pool area for heavily patronized public pools.

A Bethlehem-plan pool costs about ten per cent. more than an ordinary pool. This low estimate of extra cost of the Bethlehem-plan pool depends on three things, namely, (*a*) The usual small filter with its pump, motor and piping is eliminated, (*b*) the additional concrete construction is all hidden from view, it may be plain in finish, and it merges with platforms and building walls so as to afford double use of portions of it, and (*c*) no additional ground space is required because the large filter beds occupy space not otherwise used, under platforms and dressing rooms.

Experience at Lehigh University with a well-built pool of old design shows that the pool is very expensive in operation. City water costs 7½ cents per thousand gallons, and to bring the city water up to 75° F. during the winter months costs about 8 cents per thousand gallons. Consequently the pool has been emptied, scrubbed and refilled not oftener than once in two weeks, which means 100,000 gallons to refill the pool and no less than 50,000 gallons gutter waste every two weeks. Of course a chemical disinfectant is used regularly. But, even so, the cost of operation is much greater than it would be on the Bethlehem Plan with the pool emptied, scrubbed and refilled every night, with purified water circulating through the pool at a very greatly increased rate during the day, and with chemical disinfectant used if the limit of cleanliness is desired.

The city water comes originally from the dreadfully polluted Lehigh River, and it is lifted 400 feet, purified in a sand filter plant and distributed through an expensive system of street mains. Of course sand filtration converts the water into good drinkable water; but the pool water is already warm, after one day's use it is a thousand times less filthy, quantitatively, than Lehigh River water, and it can be passed through a standard sand filter by lifting it four feet. Furthermore, the operation of emptying, scrubbing and refilling of the pool is automatic in the Bethlehem Plan, and the power now used to drive the pump for the 20-foot lift which is required for the small continuous pressure filter which is used in connection with the Lehigh University pool would be nearly sufficient for the much more rapid pumping involved in the Bethlehem Plan. The Bethlehem Plan is merely a straightforward engineering solution of the water problem of the swimming pool.

I do not believe that any landscape[2] ideal should take precedence over a proper consideration of the hygienic and economic phases of the swimming pool problem. Pools must be clean or our Boards of Health will sooner or later close them, and they must be reasonably cheap in operation or we can not afford them. Let the engineering aspects of the problem be considered first of all. The problem is, however, by no means hopeless from the esthetic side. Rectangular structures have long been used in parks and gardens; and our landscape architects must readopt a little of what was carried to excess in the time of Louis XIV. as illustrated by the grotesque artificiality of seventeenth- and eighteenth-century gardens. Slowly emerging from arboreal barbarism our forefathers came to regard a building as the most fascinating thing on earth, whereas, we, well-nigh overwhelmed with urbanities (if I may use the word in its strict etymological sense, meaning city-things), are inclined to worship trees: We need both, but let us be content to let trees be trees and grass be grass and when we build a garden house for a more complicated mechanical purpose than making love

[1] See "Bill's School and Mine," pages 23–34. Second edition revised and enlarged. Franklin, MacNutt and Charles, South Bethlehem, Pa. Price $1.00 postpaid.

[2] The City Club in Memphis, Tenn., is considering the building of public pools in the city parks for summer use and the club committee favors a spoon-shaped pool.

let us have a building and not a bower. Likewise when we build a swimming pool let us have a hydraulic installation first of all, not merely a pond. I do, of course, think that a pond is pretty, but I do not think that it is feasible to make a pond-like swimming pool that can be kept decently clean at a reasonable cost. A pond-like swimming pool would most properly be set among trees and shrubs with the dressing rooms hidden from view as much as possible; but a rectangular swimming pool might properly be like a Roman bath, honestly proclaiming itself a man-made structure with widely flung platforms and pergolas.

W. S. Franklin
Massachusetts Institute of Technology

QUOTATIONS

COLLEGES AND THE WAR

President A. Lawrence Lowell, of Harvard University, states in the Yale *Daily News* that he does not favor the granting of college credit to men in the service. He believes that "a college degree is a certificate of a certain amount of education that has been tested and attained." It is a requirement for admission to higher graduate and professional schools. It is not a certificate of good conduct or in any way a correct "recognition of military service."

If the A.B. degree is a certificate of good conduct, a sort of decoration given to students, then doubtless credit ought to be given towards it for service in the Army. If, on the other hand, it is a certificate of a certain amount of education, then it ought not to be given unless that education has been attained and tested. Take the case of the other university degrees. Would it be proper to count a year in the trenches towards a medical education as an equivalent of, or substitute for, a knowledge of bacteriology, physiological chemistry and other subjects? Obviously not.

At the present time, the A.B. degree is an educational requirement for admission to many graduate and professional schools—the graduate schools of the universities, for example, and some law schools and medical schools. Can any of these schools consider that two years of study in college and two years of service in the trenches fits a man educationally for the advanced work of the school, or not? If so, then the educational requirement of those schools means little. If not, a degree granted in consequence of credit for work in the trenches can not be accepted by those schools as equivalent to a degree of A.B. earned by study.

Let me present another difficulty. Where shall the line be drawn? I know a young man who passed his entrance examinations to college this last spring, and immediately left on the ambulance service. Suppose the war continues four years, and he then comes back again, shall his four years of service in the ambulance—or let us suppose, in the trenches—be counted as equivalent to four years in a college; and has he a claim to a degree from a college that he has never attended? And if so, has he a claim on any of the colleges which his examination entitled him to enter?

You will observe that the attempt to treat national service as equivalent to education leads to endless perplexities, because it is in itself illogical, and an attempt to reward patriotic service in an inappropriate way. Is there not some other way in which colleges can recognize the military service of their students? Could they not, for example, print in their catalogues of graduates, after the list of the members of each class who have obtained their degrees, a list of those members who did not graduate on account of military service in which they lost their lives? This could be done in the case of all university degrees.

Dean Frederick P. Keppel, of Columbia College, who is now on leave of absence to act as assistant to the secretary of war, in his annual report to the president of the university, emphasizes the fact that the colleges of the United States must be maintained at their former standard throughout the war, with only such modifications as are necessary because of changed conditions. Furthermore, he states that it is imperative that the colleges, whose students have enlisted in large numbers, must be prepared to receive them again upon their own terms when the war is over, because then there will be greater need than ever before for broadly trained men in the sciences, the arts and the professions, and these men must be encouraged to continue their education. As to probable changes in students' life and academic administration caused by the war, Dean Keppel says:

It is also too soon to foretell what permanent changes the war will work in the organization and

administration of the colleges, and in student life, but that these changes will be profound there is little doubt. Faculties and students alike will have already learned that regulations and customs which seem to be of the very essence of the collegiate structure can be swept aside without shock, to say nothing of catastrophe. When the normal course is resumed, many of these will never be restored, or will be in a form almost unrecognizable. On the other hand, certain tendencies which had been at work sometimes for years preceding the war will be greatly accelerated and will come to fruition without the lengthy and perhaps bitter struggle which would otherwise have been inevitable.

The change in the faculty point of view, which, of course, has operated and will operate with varying intensity in different institutions, will, I think, be along the following lines:

In the first place, the parental attitude which the American college has always maintained toward its students will no longer be limited to matters of personal morals or conduct, but will include the student's public usefulness, a recognition of his place in the public order. It will mean changes in the curriculum to provide for such usefulness, not alone in military subjects, but in geography and international studies, and other fields. It will involve, also, an increased realization of the importance of the physical fitness of the group, as a whole, as contrasted with the possession of winning teams of specialists.

BOOKS AND LITERATURE

THE CHILDREN'S ENCYCLOPEDIA

The World Book: Organized Knowledge in Story and Picture. Editor-in-chief, M. V. O'Shea; Editor, Ellsworth D. Foster; Editor for Canada, George H. Locke. Hanson-Roach-Fowler Company, Chicago, 1917. Vols. I., II.

There are so many encyclopedias that any addition to the list may seem superfluous. The editors of the "World Book" have tried to produce a work which, while interesting and valuable to mature persons, will especially appeal to the young. Instead of displaying an excess of technical knowledge, it is to avoid hard words as much as possible and present each subject in a simple and attractive manner. This does not mean the avoidance of difficult subjects—even the complicated anatomy of the automobile is illustrated—but it is held that with care in the use of language it is possible to convey the elements of almost all kinds of knowledge to those without previous training.

In some cases the treatment is unusually full. Thus under Africa we find Physical, Economic, Vegetation, Population and Political maps, sufficiently large to show all the details of general interest. Alfalfa occupies more than two pages, with a map. Boys' and girls' clubs are fully described and illustrated. The simplification of a theme is shown by the article Catfish; "a group of smooth-skinned fishes with protective spines on the fins and 'whiskers' around the mouth." We do not learn that they are Siluridæ, nor are we told that the whiskers are barbels. There is a small but adequate figure. Under Caterpillar we are told that "the head has six eye spots on each side," and "on the skin . . . there frequently appear . . . eye-spots or ringed spots." In this case the simplicity is overdone, for no reader would guess that entirely different structures were referred to in the two sentences quoted. The statement just above that the so-called measuring-worm has only one pair of legs on the abdomen is of course quite erroneous. The preparation of such a work as the "World Book" is full of difficulties, which could only be overcome through the cooperation of a very large and competent staff. Even then, it would not be possible to avoid all error, or to attain in every instance perfect lucidity of statement. We may assume that future editions will show many improvements, in the direction of accuracy and literary excellence. It will be necessary, however, for the editors and publishers to revise their methods in certain respects. Some of the illustrations are not merely crude but grossly misleading. In a picture of a butterfly the head, thorax and abdomen appear to be all in one piece, and the palpi are labelled mandibles. The figure labelled Bacteria includes what purports to be a group of malarial fever parasites (which are not bacteria), but looks more like starch grains or salmon scales. The figure

of cancer-growths shows the formation of "new parasites." As the illustrations often seemed to contain errors not suggested by the accompanying text, I had the curiosity to write to the indicated author of one of the articles, asking whether he had authorized the illustration given. He promptly replied that he had just seen the figure criticized for the first time; it had been inserted entirely without his knowledge or consent. This sort of thing has happened before, and as a result of this and other peculiar practises scientific men are inclined to hesitate when asked to contribute to encyclopedic undertakings or popular journals. It is very desirable that capable and well-informed writers should instruct the public, using the plainest language at their command, but they can not afford to risk their reputations by dealing with publishers who will not "play the game."

T. D. A. Cockerell

Boulder, Colorado

NOTES ON THE "SCHOOL JOURNAL" AND THE "TEACHER'S MAGAZINE" NOW CONSOLIDATED WITH "SCHOOL AND SOCIETY"

THE SCHOOL JOURNAL

The *School Journal* was founded by Amos M. Kellogg, LL.D., in the month of June, 1874, as a weekly to be devoted to the extension of free public education and to its improvement. It has always been a journal for public schools of all grades. In the period of its founding, New York City was in the throes of control by Tammany under Boss William M. Tweed. The public-school system of the city of Washington had been made free but three years before, and the first high school there had just been built from funds raised by the personal solicitation of Edward Everett Hale. Colonel Parker was in the very beginning of his teaching in Dayton, O. The National Teachers' Association, now the National Education Association, was but a score of years old, and had relatively few members. Many cities still had no school superintendents but were educationally controlled by lay board members.

There were less than a thousand high schools and academies in all the United States. Normal schools existed in but a few states. There was no collegiate or university training of teachers or of professors to be skillful educators. Latin and Greek ruled higher education and dominated secondary schools. The elementary schools had little but the three R's.

Into this world Dr. Kellogg sent the new weekly with a definite program. He desired, first of all, professionally trained teachers; next, more literature, history and science in the schools; and, as conditions thereto, he aimed to rid the schools of politics, he advocated examination of teachers for positions, and professional associations and teachers' institutes.

Once, in a conversation, he told me of his personal dealings with Boss Tweed, and of that masterful man's resentment of his exposure of the truth that hundreds of the teachers of New York City had been taken directly from kitchens into classrooms, usually without knowledge even of the multiplication tables. In this period, the *School Journal* was the organ militant of reform education. Party bosses in New York and elsewhere feared and hated the editor and his radical reform paper. By 1885 the circulation had reached seventy thousand, the greatest up to that time among all educational periodicals.

So successful was the periodical that Dr. Kellogg founded three monthlies to take up special phases of education, published in pamphlet form hundreds of essays and monographs upon pedagogical and educational themes, and scores of books. A special building was soon erected to meet the needs of the business.

Ossian H. Lang was then secured as assistant editor of the journal and of the other publications, and all of the sons of Dr. Kellogg took an active part in the business. The new editor had been assistant superintendent of schools in Buffalo, and was a scholar of note from English university life. A few years later, on account of advanced years, Dr. Kellogg retired, and the assistant editor became sole director of the periodical.

In 1904, all the Kellogg publications were combined in a syndicate with several other periodicals and publishing interests. Two years later, the periodicals were taken over by the well-known house of A. S. Barnes & Company, which soon transferred them to other parties. The editor retired to become councilman and school board member in Mount Vernon, and to edit a periodical of his own.

In 1912, in a new organization, I became president of the publishing company and editor. The *School Journal* had, however, now become a monthly; and a year and a half later, recognizing changed conditions, I left the organization and began the teaching of politics and economics in Ohio. Since then, the periodical has again changed owners and editors several times.

Among the series of articles that made the journal famous were several upon teachers' salaries; another series upon the ideal school, and another upon schoolhouse architecture. The editorials of the periodical were always a very prominent feature. For many years no other periodical in the field made so many professional reputations for individual educators through recounting their achievements and publishing their articles. Its book review department was famous until the change from weekly to monthly publication forced a restriction in this field.

In a true sense, the history of the *School Journal* has been the history of the expansion of American free public education. One battle after another has been fought and won in this forum of public opinion. But new themes and new men have arisen. The state journals have thriven; the special periodicals have increased and in some instances prospered; university organs have appeared; and the professional trainer of teachers and educators, the educationalist, the psychologist and the university-trained school superintendent have occupied the field of the old periodicals of general aspiration.

The long life of the *School Journal* has covered a period of transition and even transformation in American education. This may be traced in several different lines. In the former generation, the man in charge of city schools was usually by nature a teacher. His attitude toward his colleagues and subordinates and pupils was that of the instructor. His motive was generally ethical and in some instances distinctly religious. To him the great need of the world seemed to be regeneration. He was concerned chiefly with morals and manners. We owe to him very much of the patriotic sentiment and of the high idealism of the present generation that he educated. If we have freedom at all in America, it is largely due to the educator of this kind, who believed in the rights of the individual and in his high duties to his Creator and to his fellowmen. It scarcely needs to be pointed out that the man who to-day is in charge of the American city and county schools systems is of a distinctly different kind. At best, he is a scientist meaning to bring about the education of youth by definitely directed methods and devices in stages indicated by the characteristic heredity of human beings. This man knows at least something of psychology. He is also something of a sociologist and works for this and that definite reform. It may be now one thing and again something else, but he is an objective worker rather than a subjective thinker. Generally, he is also trained in administrative principles and methods. Most American city school superintendents are really first class business men. The contribution that the *School Journal* made in early days was to emphasize the proposition that the man at the head of the schools should be the ablest available person. It was scarcely foreseen forty years ago that the ablest person would be one who was not so much a philosopher as an applied scientist.

Of course, the manual training movement has come in. Forty years ago, there was but little thought in this country of the disintegration of the home which has since been realized. In the school we now learn the industries that were formerly acquired partly by instruction and partly by mere imitation in the farm or workshop of parent or other relative. The immense transformation that has taken place in all good schools in city or

county was beyond the dreams of men of the former time. They would not have seen a necessity for it. Nevertheless, they did unconsciously much for it in that they taught arithmetic and drawing thoroughly. But for their pressure upon public opinion, we should not have now nearly five times the per cent. of youth in high schools that the record for 1874 discloses. These men believed in higher education of youth, though the actual education that they intended was materially different from the present education. It has resulted in the change of the personnel of the superior control that there should be great changes in the preparation of teachers; and here the scholar and philosopher who founded the *School Journal* rendered valiant service. In article after article, he said that the important question is not what salary the teacher gets, but what preparation the teacher has had and therefore what salary the teacher is worth. Not only did he urge the case in the columns of the magazine, but also upon the public platform many, many times he delivered lectures on the preparation of teachers whose outcome, if realized, could be nothing else than the present pedagogically trained teacher. To-day, in our city schools, it is rare that any teacher is employed who is not a high-school graduate with at least two years' preparation in a normal school or the equivalent. Such a teacher was the desire not only of Horace Mann over half a century ago, but of the leaders who came immediately after the Civil War. It may indeed be that we have a still higher ideal for the teacher of the future, but this is due not so much to a change in aspiration as to greatly enlarged opportunities to secure college graduates with additional university training. The men of the former time builded indeed better than they knew.

In the decade that followed the Civil War, a school house was considered strictly modern when it was built of brick, had good floors, a solid blackboard and an assembly hall. Most of the present-day requirements were undreamed of. The succeeding years were to bring ventilation, scientific heating, ample stairways, strictly fireproof construction, slate blackboards, adjustable desks, playrooms under roof and properly developed playgrounds outside. The new school house with its domestic science and art, its class and individual music, with its overhead lighted drawing rooms, with its convenient scientific laboratories, with its libraries and even museums of science and art and with its special rooms for community center meetings, was forced upon the public by the new course of study.

In 1914, the acceleration of progress in American public schools was in crescendo with a curve of rise that reversed the parabola. There was indeed no limit in sight as to what the public would provide for its schools. That the war has checked this every one knows. Nevertheless, that there will be no recession from the standard of 1914 is the belief of most educators.

A very important contribution made by the educator who founded the *School Journal* was that for new and better text-books. He himself wrote and published very much better books than had been issued before. In this field his work was that of a bridge between the past and the future. The beautifully illustrated geography of to-day is far beyond the dreams of the educators of 1874, but nevertheless, they worked for it, and made it possible by changing the ideals in the minds of men.

The free text-book movement was started in Massachusetts about the time of the founding of the *School Journal* and now has reached about half the states in the Union. It is part of the whole educational program for universal enlightenment. How important it is, only the teachers in the classrooms can realize. Statistical studies of school children show that they think most about the studies that they pursue, next about their teachers and third about their books. They think very much more about their books than they do about their buildings. The result of this investigation has thrown much light upon the importance of text-books. Indeed the modern text-book has made popular the courses often hitherto disliked.

In the years of the life of this periodical, the states have developed their educational codes; and states, cities and counties have undertaken school surveys, often of strong influence upon educational development. Investigation has become the instrument of legislation; and the publicity of truth has become the standard of moral action in the field of public education.

Contributing constantly to these movements, the *School Journal* has now been consolidated with School and Society, and in its new relation is to continue, we all hope, its devotion to a progressive school policy, and to the program that meets the interests and needs of the twentieth century.

W. E. Chancellor

College of Wooster

THE TEACHER'S MAGAZINE

The union of the subscription list of the *Teacher's Magazine* with School and Society closes an interesting chapter in the educational history of the United States and, to some extent, abroad. The *Teacher's Magazine* started September, 1878, was called the *Teacher's Institute*. It was a monthly at $1.00 a year. Its history is closely associated with that of the *School Journal*. Amos M. Kellogg, a teacher with progressive ideas, bought the *School Journal* in 1874. It was his intention simply to publish the weekly paper; but many requests for more expanded statements of what appeared in the *School Journal*, with a concrete bearing on schoolroom work, led to the publication of the monthly paper, *The Teacher's Institute*. The office then was located at 25 Park Place, New York City. Amos M. Kellogg was the editor, his son, Edward L. Kellogg, the business manager. About 1880 Professor Jean I. Charlouis, a French teacher at Albany, became the advertising manager. In 1884 Dr. Jerome Allen became active editor, while Amos M. Kellogg devoted his time to writing books, and Nelson O. Wilhelm, a teacher at Franklin, Pennsylvania, became the circulation manager. At this time the combined circulation was less than eight thousand.

Amos M. Kellogg had labeled his ideas "the new education" of which Dr. Jerome Allen was a learned and able apostle. The Phillipics of Amos M. Kellogg against corporal punishment, reciting by rote, the a, b, c method of teaching reading, had made many bitter enemies. Dr. Allen was more successful in teaching the better way without violent vitriolic attack on men who still clung to the old methods and ways. But the press and "professors" were active and violently opposed to the "cranks" and innovators of "Gotham." Only once did the complacent Jerome Allen forget he was "too proud to fight" back. Then in answer to long-continued attacks he accused an editor of being largely composed of "innate crookedness." Learning how to fight, according to law, editorially, cost the learned doctor $600, the award of a libel suit.

The *Teacher's Institute* published the lectures of Colonel Frances W. Parker, Superintendent of Schools, Quincy, Mass., given at a summer school at Marthas Vineyard. These were later published in book form as "Parker's Talks on Teaching"; more copies of which have been sold than that of any other book on teaching.

Later Miss Lelia Partridge visited the Quincy schools and reported the class work which was published in the *Teacher's Institute* as the "Quincy Methods" which later appeared in book form. All over the country an open sesame to good positions was to know and teach by the manner of the new education.

In the meantime Professor Charlouis had secured a business of over $30,000 a year in advertising, Mr. Wilhelm and his 3,000 agents had secured about 50,000 paid subscribers for the *School Journal* and 125,000 paid subscribers to the *Teacher's Institute*. Three other periodicals were started and attained a large circulation and some 200 different pedagogical books were published. The business grew so rapidly that the firm soon outgrew 25 Park Place and a whole building at 25 Clinton Place, so it erected a six-story building of its own at 61 East 9th Street, in which it did its own printing.

Dr. Jerome Allen took on an assistant, Mr. Ossian Lang, who later, on Dr. Allen's retirement, became editor-in-chief. In 1902 Mr. Wilhelm accepted an official position with the Chautauqua Institution.

Mr. Boocock became circulation manager. He and Mr. Edward L. Kellogg organized a great corporation and took into the combination a Chicago publishing house. They organized a business system with state agencies after the manner of text-book houses. In most cases they gave the state agencies to agents of rival houses.

They changed the name from the *Teacher's Institute* to the *Teacher's Magazine*. The circulation began to shrink 20 per cent. a year, which shrinkage continued for nine years. In 1906 a receiver sold right, title and interest to Henry Barnes. He died in 1911, after losing $75,000 in efforts to reestablish the prestige of the publications. He continued the policy of using agents of rivals to get his business. Mr. William H. Ives bought the periodicals from the Barnes estate. The first six months the *Teacher's Magazine* showed a marked sign of life and renewal of interest. The circulation went up from 7,500 to over 26,500. Then the editor and circluation manager were "fired," and some small stockholders undertook to run both the editorial and circulation ends and soon ran the papers into receiver's hands. After various "sales" and efforts the circulation and good will were taken over by School and Society.

At the time the Kellogg papers were started, there were many teachers who had had no normal-school or college training, in fact, most of the normal schools were largely concerned in teaching grammar-grade and high-school subjects. In the school-room teachers taught as their parents and grandparents had been taught.

Amos M. Kellogg had spent twenty years in school rooms, in institutes as lecturer and in normal schools. He with other thinkers had the opinion that to improve the schools there must be advanced ideas in the teacher. This lead to establishment of normal schools. All teachers could not attend normal schools; so Mr. Kellogg employed the pages of his papers to offer a kind of substitute for a normal-school training. He saw a number of defects in the school system, especially those arising from its connection with political machinery. He believed the true mode of improving the schools was in enlarging the teachers' conception of the mighty task of teaching. He urged normal schools and a professional training. He was the first to urge manual training and the house was the first to publish a book on the subject. The Kellogg papers were likewise pioneers in advocating many new things which to-day are commonplace and accepted everywhere in practise. One practise of the company was to continue all subscriptions until ordered stopped. This led to criticism of the business methods not forgotten even to this day.

These papers flourished when syllabi and scientifically planned courses of study were practically unknown. Then teachers were at liberty to use initiative to get results. Now in contrast the schedule not only marks out close and fast what is to be done every minute of the school day but also the manner of doing it. In the nineties even tens of thousands of country school teachers could intelligently discuss the relative advantage of the Socratic or synthetic methods in teaching certain topics of certain subjects. Now they are more apt to be experts on the laws governing the marking up of the records of the classroom output.

The Kellogg papers aimed to have all that appeared in them strictly according to the highest ideals of teaching. There was a central idea and a fixed editorial policy to guide.

Francis W. Parker, John Dewey, Anna Johnson, Thomas W. Balliet, James E. Hughes, N. A. Calkins, W. H. Payne and many others now internationally famous men and women were regular contributors. Beside articles on teaching done at Quincy and later at the Cook County Normal School where Colonel Parker was located, and various articles on the new education, there appeared many articles illustrating the way Pestalozzi, Froebel and Socrates taught. The everlasting

idea seemed to be the getting at the philosophy or spirit of the way to present to the mind and the way the mind opens up to a new thought. A long series of articles appeared on mind studies. Of object lessons, nature study there were many. But in every issue appeared articles on how to teach this and that of the everyday branches. Superintendent Hughes's articles on "mistakes in teaching" had a long run and finally were published in book form.

Here are a few titles showing the trend on side lines: "Self-Government," "Teach Children to Observe," "Grading a District School," "How the Teacher may become the Soul of the School."

In the earlier years many articles appeared against corporal punishment, but on the attack laws were soon enacted in most states abolishing it.

Most of the abuses the Kellogg papers fought have been abandoned, most of the improvements for which he contended are now firmly entrenched in practise. In other words, we have become so perfect and have made so perfect a running machine that nearly every one within the profession contemplates it with pleasure, composure and satisfaction. Of course we must admit there are a few captains of industry and many business men who find fault with the educational results. Is there really a fault or are they expecting too much? Are they mistaking personal ineptitude and lack of common sense for lack of proper schooling?

If Spencer, Parker or Amos M. Kellogg were living to-day, would they find everything as it should be?

First: They would find an entire educational press of over one hundred papers complacent, wholly satisfied, never complaining except for the most part on the score of patronage. There is no political abuse ever discovered, the weakness or badness of text-books is never mentioned, so all must be perfect. Many of them fill their pages with purely text material or material for entertainment. Out of the great common level is discovered no particular man or theme towering above all others. Hon. W. W. Stetson, state superintendent of Maine, once said: "Perfection is a calamity. Perfection not only ceases to grow it retrogrades."

Second: Among the eminent educators they would find few who would care for the limelight of the world to be played on their ideas of education for twenty or thirty years.

Third: Among themes and things educational, they would find an Italian teacher, who discovered that in a free and easy school where inclination guides that she is able to get a glimpse at the soul of the child. One is never himself when dressed up, or posing to have his picture taken. Madame Montessori made a great discovery if rightly used pedagogically to correct evil tendencies.

They would find millions spent for machinery and equipment for vocational education, much of it sheer waste because of the lack of a proper survey of wants and aptitude. They would find the minds of men divided on the Gary system, which when boiled down is largely the making a four-room school building accommodate five or six classes. They would find less than half of the teachers in many places who took any sort of an educational paper. Farmers take papers but perhaps teaching is less important than raising calves and cabbages. They would find syllabi, courses of study, schedules and supervisors galore. Even so much so that the grade teacher has all her work, and the way to do it, mapped out. If she were a mill hand her activities would be no more guided or watched. They would find Italian, French and German taught in high school and college as if they were dead languages. They would find a growing irreverence, less physical prowess, for now our boys and girls take a large part of their physical training in watching the favorite team do stunts. (Oh, for the return of three o'cat, where everybody could get busy.)

They would find, still in force, a system of education handed down centuries ago, much improved but in all main essentials the same. Reformers have lived, aimed at some corner to be improved and died. Yet now we live in

times which have been changed by Luther, Savonarola, Edison and Wright. When, Oh when, will a Moses or a Luther come to show us a better way to be and to do for himself, in the community and for the state.

The *Teacher's Magazine* did a glorious work in its day, but now submerged in body but not in spirit, may the work so well begun go forward.

N. O. Wilhelm

Orange, N. J.

EDUCATIONAL RESEARCH AND STATISTICS

HOME AND SCHOOL STUDY TIME OF 1,661 PACIFIC COAST HIGH-SCHOOL PUPILS. II.

COMPARISON OF VIRGINIA AND PACIFIC COAST PUPILS

By reference again to Table I. it will be seen that the average amount of time spent in school study by the students of the 13 Pacific coast high schools investigated was 95.01 minutes per day, and of home study, 65.41 minutes per day. Professor Heck's findings for the 2,163 Virginia high-school students were 82 minutes per day for school study and 117 minutes per day for home study. The Pacific coast high-school students spend an average of 13.01 minutes a day more in school study than do the Virginia high-school students; but the Virginia students spend 51.59 minutes more per day in home study than do the Pacific coast students. Also the total average study time of the Virginia students exceeds that of the Pacific coast students by 38.53 minutes per day. These differences can hardly be accounted for on the grounds of a difference in the methods employed in gathering data. Professor Heck's method of securing records of home study time was probably more accurate than that employed in this study, although the precautions taken to eliminate padding in the case of the Pacific coast pupils probably resulted in a fairly accurate record being secured. In the matter of school study the figures arrived at in the Virginia study were the result of estimates of the high-school principals as to the amount of time spent in school study by their pupils, while the school study time of the Pacific coast pupils was computed from estimates made by the pupils themselves and carefully checked by the investigator, as well as from schedules made out in the case of the Oregon pupils. There are three possible explanations for the excess of total study time, amounting to 38.53 minutes per day, and of home study time, amounting to 51.59 minutes per day, of the Virginia students over the Pacific coast students:

(*a*) It may be a more common practise in Virginia to permit high-school students to carry five or six subjects, which would materially decrease the possibe amount of school time that might be devoted to study and necessitate a proportionately greater amount of time devoted to the study of lessons at home. This explanation is supported by the fact that the school study time of the Virginia high-school pupils is only 82 minutes per day, while that of the Pacific coast pupils is 95.01 minutes per day or 13.01 minutes per day greater. Also there is a growing tendency on the part of high-school men on the Pacific coast to limit all students, unless they show exceptional ability, to four subjects. This tendency was shown in the answers to question "One" of the questionnaire, in which they were asked to state all the subjects which they were at that time taking. In answer to this question 1,325 pupils, or 79.77 per cent., stated that they were taking four subjects or less, and 336, or 20.23 per cent., stated that they were taking more than four subjects. The exact number of regular, five-hour-a-week subjects taken by each of the 1,661 Pacific coast pupils is shown in the following table.

If a similar study of the number of subjects being carried by the Virginia high-school pupils should reveal the fact that 25 or 30 per cent. of them were carrying five or more subjects at the time Professor Heck's investigation was made, the difference in total study time and particularly the difference in amount of home study time would be easily accounted for.

(*b*) It may also be possible that there is not as much emphasis on the matter of elimi-

nating home study among Virginia high-school authorities as there seems to be on the Pacific coast. In California home study has been abolished in the grammar grades entirely and in Washington and Oregon the same idea is gaining ground rapidly. Among the Pacific coast high schools there are already thirty-five or forty which have adopted some form of the double period for supervised study, which, as we saw in in the early part of this discussion, tends to increase the amount of school study and decrease the amount of home study. Referring again to Table IV. it will be seen that the double-period schools show a greater percentage of their pupils carrying four subjects or less, *i. e.*, 84.75 per cent., than the assembly type of high schools, where 77.75 per cent. are found to be carrying four subjects or less, and 22.25 per cent. in the latter schools were carrying five or more subjects. If returns were at hand from all schools employing the double-period plan of supervised study the above percentages would in all probability be found to hold good for the larger group.

(*c*) A still further explanation might be found if it were possible to compare the courses of study of the Virginia and Pacific coast high schools. If the Virginia high schools offer primarily academic subjects such as history, languages, English, and the sciences, with a comparatively small offering in vocational subjects, such as shorthand, typewriting, bookkeeping, manual training, domestic science, etc., it would be expected that Virginia high-school pupils would spend less time in school study and more in home study than Pacific coast pupils, because the investigator found that a very large proportion of the Pacific coast pupils were taking vocational subjects. These subjects require more school time and less home time than the academic subjects.

INDIVIDUAL DIFFERENCES

The individual differences in the amounts of home and school study time of the 1,661 high-school pupils whose records were studied is shown in the following tables, *i. e.*, Tables V., VI., VII., and VIII.

TABLE IV

Showing Number of Subjects Taken by Each of 1661 High-school Pupils

(*a*) Assembly Schools

No. of Studies Taken	2	3	4	5	6	Total Records
Palo Alto, Calif., H. S.	0	21	222	26	1	270
Campbell, Calif., H. S.	0	8	73	9	0	90
Redwood City, Calif., H. S.	0	1	54	35	3	93
Los Gatos, Calif., H. S.	0	2	53	10	2	67
San Mateo, Calif., H. S.	0	3	139	51	1	194
Alameda, Calif., H. S.	0	6	85	70	4	165
Salem, Oregon, H. S.	0	14	75	11	0	100
Astoria, Oregon, H. S.	0	8	41	20	0	69
Ashland, Oregon, H. S.	3	12	99	19	1	134
Totals	3	75	841	251	12	1,182
Per cent	.25%	6.35%	71.15%	21.24%	1.01%	100%

(*b*) Double-period Schools

Eugene, Oregon, H. S.	0	8	79	13	0	100
Oakland, Calif., H. S.	1	2	30	4	0	37
Snohomish, Wash., H. S.	1	11	137	4	0	153
Everett, Wash., H. S.	1	11	125	49	3	189
Totals	3	32	371	70	3	479
Per cent	.63%	6.68%	77.44 %	14.62%	.63%	100%
Grand totals	6	107	1,212	321	15	1,661
Total per cent	.36%	6.44%	72.97%	19.32%	.91%	100%

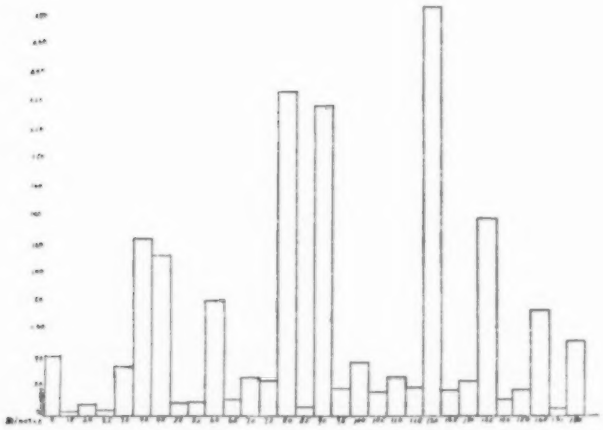

Fig. 2. Showing Frequency of Amounts of School Study Time.

TABLE V

Frequency of Various Amounts of School Study Time

Min.	P. A.	Camp.	Rw. C.	L. G.	S. M.	Ala.	Oak.	Eve.	Sno.	Ash.	Ast.	Sal.	Eug.	Total.
0	12	3	1	2	17	5	0	0	0	2	0	0	1	43
15	1		1										1	3
20	3	1			2	1				2				9
25										3			1	4
30	7	1	1		12	3				2	2	1	4	33
40	40	15	12	12	9	22	3			1	3		5	122
45	10	8	3		46	21		2	2	7		8	5	112
50	1	4									2		1	8
55										6		1	2	9
60	36	5	5	1	20	5		1		3		1	3	80
65										4	3	1	4	12
70	1	2				4				7	1	3	7	25
75	1	2			4	7		1	2	1			5	23
80	57	14	41	22	11	20	9	1	19	2	15	4	10	225
85										1	1		4	6
90	26	15			45	37	5	31	2	26	3	16	9	214
95										1	3	9	5	18
100	5	1			2	1	4	4	1	1	2	5	9	35
105		1								1	8	1	3	14
110	3					3	1	1		11	2	3	2	26
115										12	1	3	3	19
120	57	7	27	30	20	31	8	4	62	5	17	12	3	283
125										6		4	7	17
130		9			4	2				1	2	2	3	23
135	2							101		19		15		137
140	2					2	3		2	1		3		13
150	6	2	1		1	1	2	1				3	1	18
160							2	2	60	4	3	1	1	73
170											1	3	1	5
180			1		1			40	4	5		1		52
	270	90	93	67	194	165	37	189	153	134	69	100	100	1,661

It will be noticed that there are six principal modes in the column of totals, *i. e.*, at 40 minutes, with 122 records; at 45 minutes, with 112; at 80, with 225; at 90, with 214; at 120,

with 137, and at 135 minutes, with 137 records. These modes are evidently determined by the length of the recitation or study periods in use in the various high schools included in the study. These study periods were either 40 or 45 minutes in length. The lesser modes are found at "0" minutes, with 43 records; at 30 minutes, with 33 records; at 60, with 80; at 100, with 35; at 160, with 73; and at 180, with 52 records.

Summarizing Table V. by combining certain groups of records to show the number falling within certain periods comprising a larger number of minutes per day, as well as hours per week, we have the following:

SUMMARY OF TABLE V. (SCHOOL STUDY)

From 0 to 50 min. per day,	or 0 to 4 hours per week,	334,	or 20.11 per cent.
From 51 to 95 min. per day,	or 5 to 8 hours per week,	614,	or 36.86 per cent.
From 96 to 140 min per day,	or 9 to 12 hours per week,	567,	or 33.13 per cent.
From 141 to 180 min. per day,	or 13 to 15 hours per week,	148,	or 10.10 per cent.

It appears from this summary that 334 Pacific coast high-school pupils of the 1,661 whose records were investigated spend four hours per week or less in school study; 1,179 of them, or about 70 per cent., spend between five and twelve hours a week in school study, and 148, or 10 per cent., spend from twelve to fifteen hours a week in study of their lessons at school. Taking 8 hours a week (95 minutes per day) as the median, there are 946 of these high-school pupils, or 57 per cent., who spend the median or less than the median amount of time in school study, and 715, or 43 per cent., who spend more than the median amount of time in study at school.

Treating the data for home study time in the same manner as we have just been treating the data for school study, Table VI. has been compiled, showing the frequency of the various amounts of home study of the Pacific coast high-school pupils. The range of minutes is much greater in this table than in table V., *i. e.*, from 0 to 330 minutes per day as against 0 to 180 minutes per day in the matter of school study time, but while 52 reached the limit of 180 minutes in school study time, only one reached the extreme limit of 330 minutes per day of home study time.

In the above table the principal modes come at 0 minutes, with 207 records; at 30 minutes, with 118 records; at 40, with 108; at 60, with 252; at 90, with 165; and at 120 minutes, with 150 records. The lesser modes are found at 20 minutes, with 45 records; at 45 minutes, with 63; at 80, with 73; and at 180 minutes, with 46 records. Both the greater and the

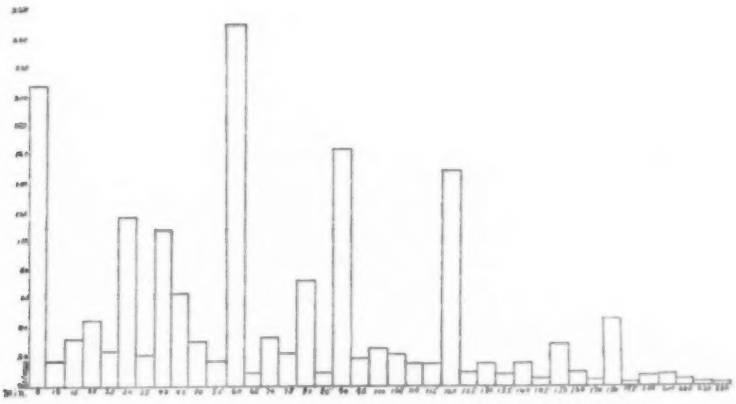

Fig. 3. Showing Frequency of Amounts of Home Study Time.

TABLE VI

Frequency of Various Amounts of Home Study Time

Min.	P. A.	Camp.	Rw. C.	L. G.	S. M.	Ala.	Oak.	Eve.	Sno.	Ash.	Ast.	Sal.	Eug.	Totals.
00	21	9	18	15	34	10	9	59	15	10	2	3	2	207
10										5	3	5	5	18
15	1	1	1	1				3	15	2	4	3	1	32
20		1	3	1	3	3		5	20	4		2	3	45
25	1	2	1						2	9	5	2	3	25
30	17	5	8	2	35	10	2	10	14	4	5	3	3	118
35										7	3	6	5	21
40	32	1	10	7	5	6	2	5	23	5	5	6	1	108
45	8	3	1		6	3		18	3	4	5	6	6	63
50		2		1	5	2		1		3	5	5	7	31
55										9	2	4	3	18
60	47	15	11	8	28	39	9	41	34	4	3	6	7	252
65										2		5	2	9
70	3	3			2	1			2	13	6	1	3	34
75	3	3			5	2		1	1	1	2	2	2	22
80	29	1	5	6	7	5	2	1	5	3	1	2	6	73
85										4	1	1	4	10
90	26	10	8	8	32	24	4	30	7	5	3	4	4	165
95										5	3	6	5	19
100	2	3			2	6	3		4	1	2	1	2	26
105	2	1	1		1	4		1	1	3		2	5	21
110					1	3				3	1	3	5	16
115										9	3	1	3	16
120	39	11	16	8	20	30	5	11	4	3	1	2		150
125										4	2	2	3	11
130	3	3	2			1					2	3	1	15
135								1		5		2		8
140	1	1	1	2		4				1	1	3	2	16
145										1	1	1	2	5
150	11	4	3		3	2			2	1		1	1	28
160	1	2	1	1	1	1				2			1	10
170	1									1		1	1	4
180	19	3	3	7	4	4	1		1	1		3		46
195		1										1		2
200	1	1				2		1			1			6
210	1	2				1		1					2	7
240	1	1				1						1		4
270		1				1								2
330												1		1
Total.	270	90	93	67	194	165	37	189	153	134	69	100	100	1661

SUMMARY OF TABLE VI. (HOME STUDY)

From 0 to 50 min. per day, or 0 to 4 hours per week, 668, or 40.21 per cent.
From 51 to 95 min. per day, or 5 to 8 hours per week, 600, or 36.12 per cent.
From 96 to 140 min. per day, or 9 to 12 hours per week, 279, or 16.80 per cent.
From 141 to 180 min. per day, or 13 to 15 hours per week, 93, or 5.60 per cent.
From 181 to 330 min. per day, or 16 to 28 hours per week, 21, or 1.27 per cent.

lesser modes indicate that the tendency was to estimate home study in fractions of sixty or multiples of sixty.

In home study, then, there are 1,268 high-school pupils of the 1,661, or 76.33 per cent., who spend from 0 to 8 hours per week in home study, and 393, or 23.67 per cent., who spend over 8 hours and up to 28 hours per week in home study. Taking the median found in Table I., *i. e.*, 66 minutes per day for home study, and applying it to Table VI. we find that 947 pupils, or 57 per cent. spend the median or less than the median amount of time per day in home study and 714 pupils, or 43 per cent., spend more than the median amount of time per day in home study. It is an interesting coincidence that 57 per cent. also are at or below the median in school study time and 43 per cent. above the median.

Professor Irving King investigated the home

study time of 1,431 high-school pupils of Iowa, recording the results in Chapter XIV. of his book on "The High School Age." His study shows the following distribution:

0 to 4 hours per week,	130,	or	9.86 per cent.
5 to 8 hours per week,	771,	or	54.16 per cent.
9 to 12 hours per week,	379,	or	25.75 per cent.
13 to 16 hours per week,	122,	or	8.31 per cent.
17 to 20 hours per week,	29,	or	2.02 per cent.

There are 901 of these Iowa high-school pupils who spend from 0 to 8 hours a week in home study; this constitutes 64.02 per cent. of the total number reporting. As we saw above there were 76.33 per cent. of the pupils from the 13 Pacific coast high schools who spent from 0 to 8 hours per week in home study. This would leave 35.98 per cent. of the Iowa pupils spending over 8 hours per week in home study, as against 23.67 per cent. of the Pacific coast pupils, an advantage in favor of the Iowa high-school pupils of 12.31 per cent. As Professor King does not give a table showing the school study time of the Iowa pupils it is not possible to make a comparison as to total study time between the two groups. As suggested in the beginning of this paper the method of securing the data from the Iowa pupils, *i. e.*, that of having them check one of the five possible answers in terms of hours that came nearest to fitting their case, would easily lend itself to overestimation. That fact alone might account for the larger per cent. reporting that they spend more than eight hours a week in home study.

The total average study time (school and home combined) of the 1,661 Pacific coast high-school pupils appears from Table I. to be about 160 minutes per day. This amount of study time, divided equally between four subjects, would mean forty minutes for each subject. High-school teachers usually expect that more than that amount of study will be devoted to their particular subjects, but it turns out more often than not to be a mere expectation. The fact that a large amount of home study is required of high school pupils is no guarantee that it will be done, or that if it is attempted it will be effective. There is every reason to believe that forty minutes spent in preparation for the following day's lesson under the direct supervision of the teacher of a given subject will be twice as effective as the same amount of undirected and unsupervised study under the conditions that obtain in the average home.

SUMMARY

The present investigation has shown that for the thirteen schools from which the records were received, the schools having some form of the double—or lengthened—period plan of supervised study had a total average school and home study time of 168.64 minutes per day as against 156.76 minutes a day for the schools having the assembly type of study administration, or 11.88 minutes per day more; that 18 per cent. of the pupils from the double-period schools reported "no home study," while only 10 per cent. so reported from the assembly hall schools; and also that 84.75 per cent. of the pupils from the double-period schools were carrying only four subjects or less, leaving 15.25 per cent. undertaking to carry five or six subjects, while 77.75 per cent. of the pupils from the assembly hall type of schools were carrying four or less and 22.25 per cent. of them were registered for five or more subjects.

These findings suggest the desirability of further experimentation with the double-period plan of supervised study on a much wider scale than has yet been attempted in order that its merits may be thoroughly tested in different types and sizes of high schools; that its effects on study habits and school efficiency may be tried out; and that the cost and difficulty of adopting it may be measured.

William Martin Proctor
Stanford University

SOCIETIES AND MEETINGS

MASSACHUSETTS EDUCATIONAL SOCIETIES

A joint meeting of the Massachusetts Teachers' Association, the Massachusetts Superintendents' Association, the New England Superintendents' Association and the American Institute of Instruction was held last week in Boston.

The complete program of the session follows:

THURSDAY EVENING

BANQUET

FRIDAY MORNING

Joint Meeting, Auspices of Massachusetts Superintendents' Association

Address: "Nationalization of public schools," Hon. P. P. Claxton, United States Commissioner of Education.

Address: "Responsibility in school administration," Hon. Payson Smith, Commissioner of Education for Massachusetts.

Address: "Certain junior high-school problems," Hon. Myron B. Hillegas, Commissioner of Education for Vermont.

Address: "Some phases of rural education," Hon. Augustus O. Thomas, Commissioner of Education for Maine.

Business meeting.

FRIDAY AFTERNOON

Joint Meeting, Auspices of Massachusetts Superintendents' Association

Business meeting.

Address: "Lessons of war time for education," Superintendent Franklin B. Dyer, of the Boston schools.

Discussion (ten minute addresses)—"As applying to national needs," Hon. P. P. Claxton, Washington. "As applying to city schools," Superintendent John F. Scully, Brockton. "As applying to villages and rural schools," Burr P. Jones, Massachusetts Board of Education. "As applying to agriculture and food conservation," Professor G. L. Farley, Massachusetts Agricultural College. "As applying to work for girls," Helen N. Norris, Massachusetts Agricultural College. "As applying to training of teachers," Principal A. G. Boyden, Bridgewater Normal School.

General discussion.

FRIDAY AFTERNOON

Joint Meeting, Auspices of Massachusetts Teachers' Association

Invocation: Austen Kennedy De Blois, D.D.

Announcements.

Address: "Changing educational ideals," Otis W. Caldwell, director Lincoln School, Teachers' College, Columbia University.

Address: "Educational ideals which ought not to change," President Alexander Meiklejohn, Amherst College.

Discussion: Dr. Charles W. Eliot, Cambridge; Principal Alfred E. Stearns of Phillips Andover; Hon. Myron B. Hillegas, Montpelier, Vt.

FRIDAY EVENING

Joint Meeting, Auspices of Massachusetts Teachers' Association

Address: "A war time (1917) visit to France and French schools," Hon. J. H. Finley, Commissioner of Education for New York.

Address: "The war and internationalism," Dean Craven Laycock, Dartmouth College.

Address: "What the war has taught the teachers," President W. H. P. Faunce, Brown University.

SATURDAY MORNING

Business Meeting of the Massachusetts Teachers' Association

Reports: Secretary, auditor, treasurer, committees: Neurology, Henry C. Harden, chairman. Continuation schools, Carlos B. Ellis, chairman. Educational progress, John J. Mahoney, chairman. Resolutions, John A. Avery, chairman. Nominations, John R. Fausey, chairman.

Report of Special Committee on Reorganization of the Massachusetts Teachers' Association, Hon. Payson Smith, chairman.

Joint Meeting, Auspices of American Institute of Instruction

Address: "Training for citizenship," Arthur W. Dunn, special agent, Federal Bureau of Education.

Discussion: Ella Lyman Cabot, Massachusetts Board of Education. Margaret Slattery, Massachusetts Board of Education.

Address: "Realizing the purposes of modern education," Hon. Calvin N. Kendall, Commissioner of Education for New Jersey.